Six Sigma MEPRS Management Metrics

Click on a peer group below to view a specific metric:

Rx Dispensing Costs	Available FTE's per Daily Occupied Bed	Ratio of Support Personnel to Provider FTEs	Rx Workload per Rx FTE	Lab Workload per Lab FTE	Rad Workload per Rad FTE	Inpatient Costs per RWP	Ambulatory Costs per APG
Medical Centers	Medical Centers	Medical Centers	Medical Centers	Medical Centers	Medical Centers	Medical Centers	Medical Centers
Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals
Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals
Large Clinics	Large Hosp OCONUS	Large Clinics	Large Clinics	Large Clinics	Large Clinics	Large Hosp OCONUS	Large Clinics
Small Clinics	Small Hosp OCONUS	Small Clinics	Small Clinics	Small Clinics	Small Clinics	Small Hosp OCONUS	Small Clinics
Large Hosp OCONUS		Large Hosp OCONUS	Large Hosp OCONUS	Large Hosp OCONUS	Large Hosp OCONUS		Large Hosp OCONUS
Small Hosp OCONUS		Small Hosp OCONUS	Small Hosp OCONUS	Small Hosp OCONUS	Small Hosp OCONUS		Small Hosp OCONUS
Clinics OCONUS		Clinics OCONUS	Clinics OCONUS	Clinics OCONUS	Clinics OCONUS		Clinics OCONUS

TMA MEPRS Program Office
Management Control and Financial Studies Division

By the end of this presentation, you will be able to:

➢ **Describe the origin and goals of Six Sigma**

➢ **Identify how Six Sigma is used in healthcare and other industries**

➢ **Understand and correctly interpret the S2M3 tool**

➢ **Understand how individual MTF characteristics can affect its position among its peer group/cohort.**

➢ **Locate tools to help you begin exploring data quality opportunities**

Six Sigma

- *Six Sigma is a statistics based business improvement process that continually strives for perfection.*

- *It employs a disciplined methodology created from the manufacturing industry for eliminating the wastes of defects or variance to lower costs and improve customer satisfaction.*

Six Sigma Methodology for Improving Existing Processes

DMAIC

- **D**efine Opportunities

- **M**easure Performance

- **A**nalyze Opportunity

- **I**mprove Performance

- **C**ontrol Performance

3

Six Sigma in Healthcare:

➢ Transcription businesses are able to identify the root cause responsible for the majority of errors committed by transcriptionists and thereby reducing significant numbers of errors.

➢ Gratiot Medical Center, in Michigan, was losing substantial revenue due to inconsistent registration and authorization procedures in the billing process. Almost immediately, they saw a significant drop-off in denials and they increased their revenue over $100,000 in one year.

➢ West Branch Regional Medical Center in Michigan focused on a primary driver customer satisfaction: the Emergency Department. Elopement was reduced from 28 per month to 17 per month over a three-month period. The average stay for admits in the ED dropped from 2.6 hours to 1.6 hours. The additional capacity in ED has the potential to generate over $150,000 in revenue per year.

Six Sigma MEPRS Management Metrics (S2M3)

FY07/08 Update

All data obtained from the EAS IV Repository and M2 in January 2009

Click on a peer group below to view a specific metric:

Rx Dispensing Costs	Available FTE's per Daily Occupied Bed	Ratio of Support Personnel to Provider FTEs	Rx Workload per Rx FTE	Lab Workload per Lab FTE	Rad Workload per Rad FTE	Inpatient Costs per RWP	Ambulatory Costs per APG
Medical Center	Medical Center	Medical Center	Medical Center	Medical Center	Medical Center	Medical Center	Medical Center
Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals	Large Hospitals
Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals	Small Hospitals
Large Clinics	Large Hosp OCONUS	Large Clinics	Large Clinics	Large Clinics	Large Clinics	Large Hosp OCONUS	Large Clinics
Small Clinics	Small Hosp OCONUS	Small Clinics	Small Clinics	Small Clinics	Small Clinics	Small Hosp OCONUS	Small Clinics
Large Hosp OCONUS		Large Hosp OCONUS	Large Hosp OCONUS	Large Hosp OCONUS	Large Hosp OCONUS		Large Hosp OCONUS
Small Hosp OCONUS		Small Hosp OCONUS	Small Hosp OCONUS	Small Hosp OCONUS	Small Hosp OCONUS		Small Hosp OCONUS
Clinics OCONUS		Clinics OCONUS	Clinics OCONUS	Clinics OCONUS	Clinics OCONUS		Clinics OCONUS

Executive Summary:
Medical Centers
Large Hospitals
Large Hospitals OCONUS
Small Hospitals
Small Hospitals OCONUS
Large Clinics
Small Clinics
Clinics OCONUS

Notes:
Six Sigma Description
Definition of Metrics
Data Sources
Peer Group Definitions

External MEPRS Resources:
MEPRS Web Portal
MEWACS
MEPRS Manual DoD 6010.13-M
Human System Interface (HSI)

MTF-Peer Group Lookup:
Air Force
Army
Navy

If you have questions on the data contained, please contact:
Deirdre Baker
SRA International
210-832-5216
Deirdre_Baker@SRA.COM

Six Sigma MEPRS Management and Control Metrics
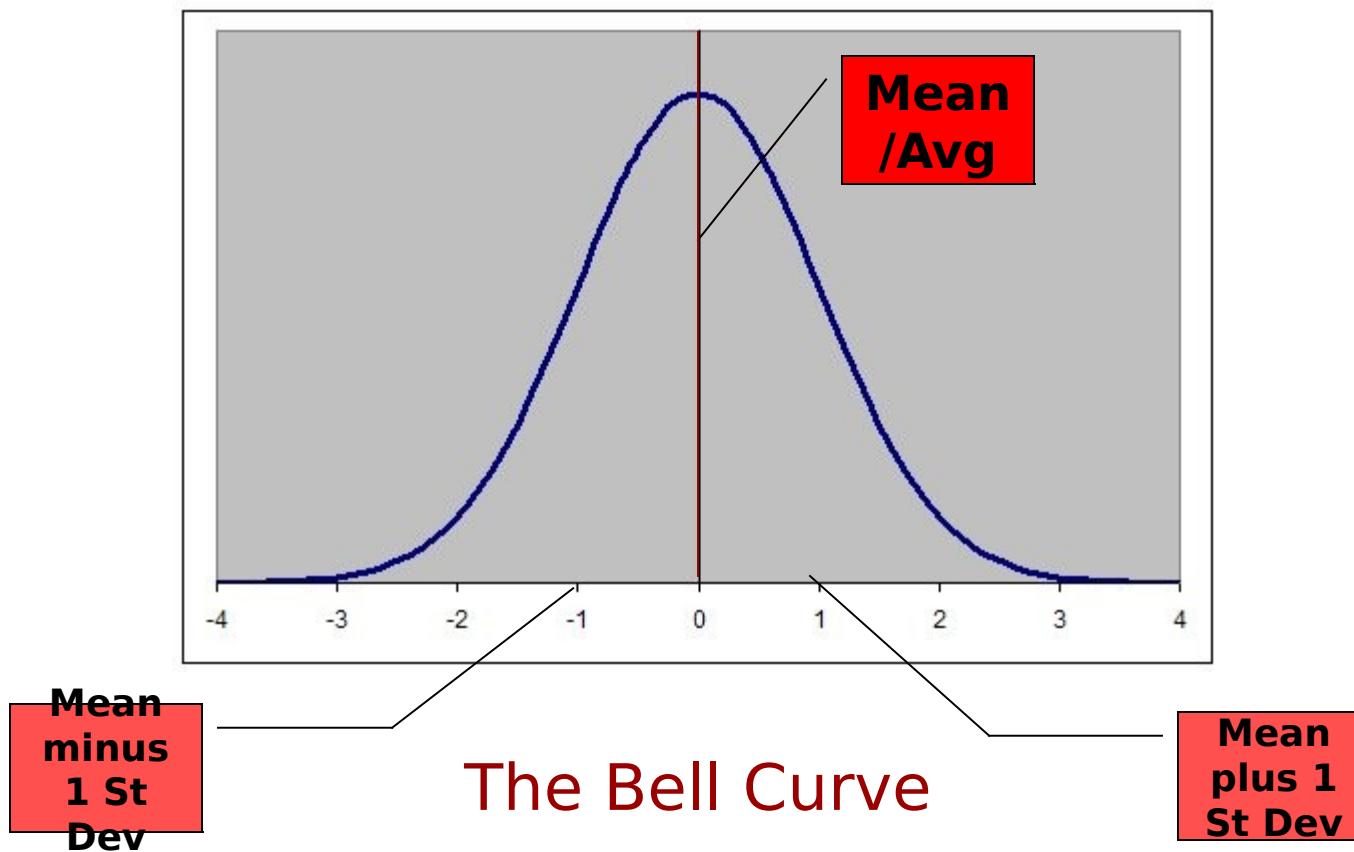## FY 07/08 S2M3
Standardized Executive Summary by Peer Group*

DMIS ID	MTF Name	Rx Dispensing Costs	Available FTE per Daily Occupied Bed	Ratio of Support Personnel to Provider FTEs	Rx Workload per Rx FTE	Lab Workload per Lab FTE	Rad Workload per Rad FTE	Inpatient Costs per RWP	Ambulatory Costs per APG	Standardized Average
Medical Centers										
0109	BROOKE AMC-FT. SAM HOUSTON	0.20	0.31	-0.12	3.06	1.29	1.18	0.52	0.32	**0.85**
0089	WOMACK AMC-FT. BRAGG	1.04	-0.29	3.21	0.08	0.49	-0.56	0.67	1.11	**0.72**
0125	MADIGAN AMC-FT. LEWIS	-0.15	0.52	0.16	-0.54	1.43	2.31	0.68	0.88	**0.66**
0052	TRIPLER AMC-FT SHAFTER	0.69	0.03	0.42	-0.21	0.59	1.25	0.27	1.08	**0.51**
0047	EISENHOWER AMC-FT. GORDON	0.06	0.78	0.32	-0.50	-0.78	0.94	0.42	1.12	**0.30**
0108	WILLIAM BEAUMONT AMC-FT. BLISS	0.51	0.31	-0.27	0.14	1.59	-0.67	0.45	0.20	**0.28**
0029	NMC SAN DIEGO	0.19	0.91	-0.25	-0.08	-0.19	-0.64	0.95	0.36	**0.16**
0124	NMC PORTSMOUTH	0.41	0.52	-0.67	-0.03	-0.74	-0.29	0.79	1.23	**0.15**
0037	WALTER REED AMC-WASHINGTON DC	-0.12	0.88	-0.08	-0.57	0.72	-0.49	-0.13	-1.01	**-0.10**
0067	NNMC BETHESDA	0.69	0.70	-0.93	0.91	-0.81	-0.28	-1.04	-1.12	**-0.24**
0117	59th MED WING-LACKLAND	0.01	-0.09	-0.50	0.07	-0.25	-0.18	-0.16	-1.14	**-0.28**
0095	74th MED GRP-WRIGHT-PATTERSON	0.53	-0.28	-0.73	-0.64	-1.15	-0.80	0.35	-1.02	**-0.47**
0014	60th MED GRP-TRAVIS	-2.99	-1.96	-0.30	-0.88	-1.21	-0.68	-1.03	-0.71	**-1.22**
0073	81st MED GRP-KEESLER	-1.08	-2.36	-0.27	-0.81	-0.97	-1.06	-2.75	-1.30	**-1.32**

*Note:

The S2M3 Executive Summary has been standardized to reflect uniform positive/negative Z-score values across all metrics, thus positive Z-scores indicate more desirable values and negative Z-scores are less desirable values. For example, in the Pharmacy Dispensing Cost metric a negative Z-score denotes a dispensing cost that falls below the peer group average. Since in that case a negative Z-score is more desirable than a positive value, the Z-score sign reflected in the S2M3 Executive Summary has been changed to positive. The Z-score signs have been reversed for the following metrics in this Executive Summary:

• Rx Dispensing Costs
• Available FTE per Daily Occupied Day
• Inpatient Costs per RWP
• Ambulatory Costs per APG

**Parent DMIS ID 1350 is a clinic with no associated ancillary workload or expenses.

Mean /Avg

Mean minus 1 St Dev

Mean plus 1 St Dev

The Bell Curve

FY07/08 Cost of Pharmacy Dispensing: Medical Centers

Parent DMIS ID	Parent DMIS ID Name	Raw Work	Rx $ Less Supply Cost	Disp Cost per Script	Z Score	
0089	WOMACK AMC-FT. BRAGG	1,067,672	$ 4,212,470	$ 3.95	-1.04	Better
0052	TRIPLER AMC-FT SHAFTER	622,289	$ 3,362,219	$ 5.40	-0.69	
0067	NNMC BETHESDA	517,216	$ 2,794,763	$ 5.40	-0.69	
0095	74th MED GRP-WRIGHT-PATTERSON	862,998	$ 5,203,029	$ 6.03	-0.53	
0108	WILLIAM BEAUMONT AMC-FT. BLISS	520,368	$ 3,175,800	$ 6.10	-0.51	
0124	NMC PORTSMOUTH	1,345,486	$ 8,770,548	$ 6.52	-0.41	
0109	BROOKE AMC-FT. SAM HOUSTON	537,211	$ 3,961,694	$ 7.37	-0.20	
0029	NMC SAN DIEGO	1,345,197	$ 9,971,965	$ 7.41	-0.19	
0047	EISENHOWER AMC-FT. GORDON	684,837	$ 5,453,268	$ 7.96	-0.06	
0117	59th MED WING-LACKLAND	723,687	$ 5,908,719	$ 8.16	-0.01	
0037	WALTER REED AMC-WASHINGTON DC	593,846	$ 5,166,575	$ 8.70	0.12	
0125	MADIGAN AMC-FT. LEWIS	863,974	$ 7,615,572	$ 8.81	0.15	
0073	81st MED GRP-KEESLER	340,071	$ 4,297,269	$ 12.64	1.08	
0014	60th MED GRP-TRAVIS	416,801	$ 8,529,987	$ 20.47	2.99	Worse

FY07/08 Cost of Pharmacy Dispensing Summary Statistics

Statistic	Raw Work	Rx $ Less Supply Cost	Dispensing Cost per Script
Mean:	745,832	$ 5,601,706	$ 8.21
Median:	653,563	$ 5,184,802	$ 7.39
St. Dev:	317,707	$ 2,275,897	$ 4.09

Value nearest peer group mean
MTFs within 1 Std. Deviation from the peer group mean
2 Std. Deviations above/below the peer group mean
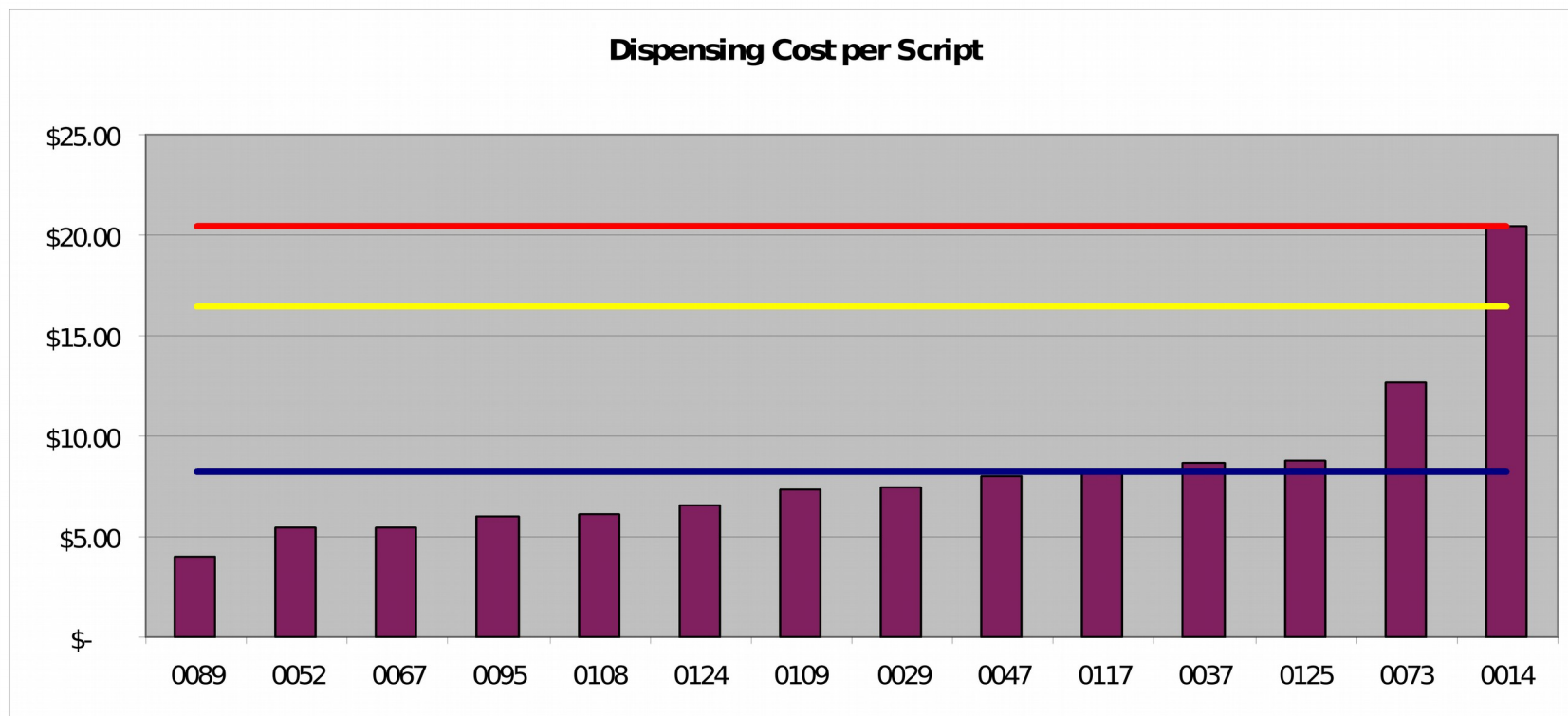3 Std. Deviations above/below the peer group mean

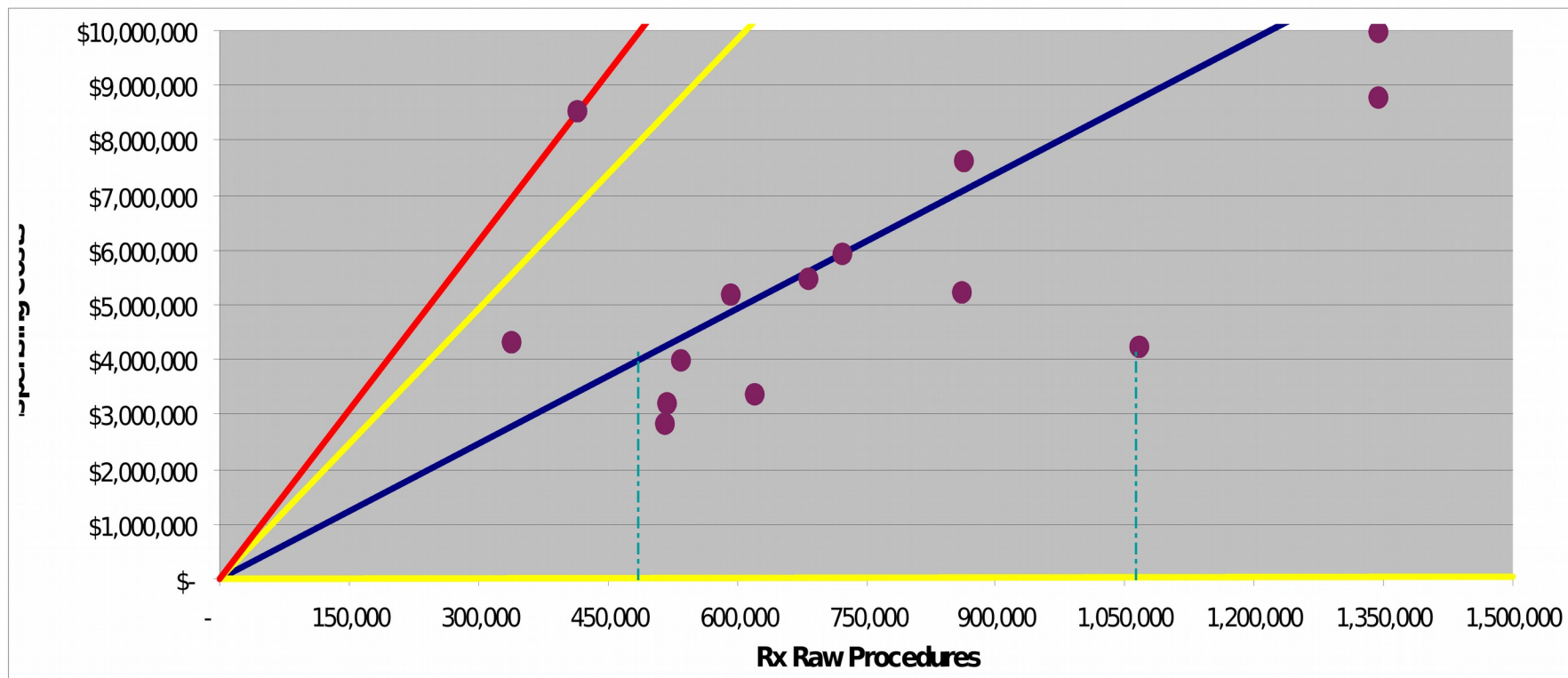**FY07/08 Cost of Pharmacy Dispensing: Medical Centers**

Peer Group Graphs

Lines Represent +/- 3 Standard Deviations from the peer group mean
Lines Represent +/- 2 Standard Deviations from the peer group mean
Peer group mean

Graph 1

Graph 2

10
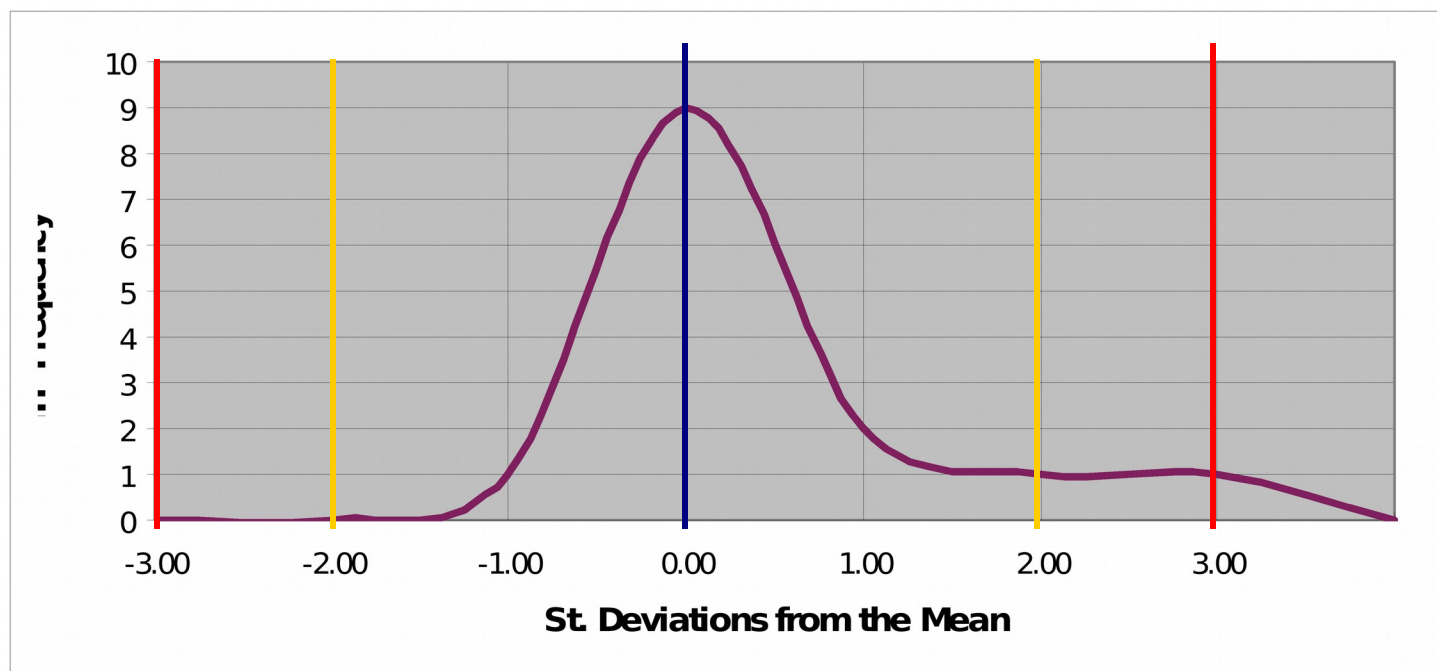
Graph 3

You can now:

➤ **Describe the origin and goals of Six Sigma**

➤ **Identify how Six Sigma is used in healthcare and other industries**

➤ **Understand and correctly interpret the S2M3 tool**

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Six Sigma MEPRS Management Metrics (S2M3)

Questions?